

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A solid electrolyte battery comprising:
a positive electrode;
a negative electrode disposed opposite to said positive electrode;
a separator disposed between said positive electrode and said negative electrode;

and

at least one solid electrolyte each of which is disposed between said positive electrode and said separator and between said separator and said negative electrode wherein said solid electrolyte comprises a mixture of a polymer and a swelling solvent present in a ratio of from about 1:5 to about 1:10; electrode;

wherein said separator is constituted by comprises a polyolefin porous film, said polyolefin porous has having a thickness satisfying a range not greater than of from about 5 μ m to about nor greater than 15 μ m and a volume porosity satisfying a range not less than of from about 25% nor greater than to about 60%;[[,]] and

wherein the impedance in said solid electrolyte battery is greater than the impedance realized at the room temperature when the temperature of said solid electrolyte battery is from about satisfies a range not less than 100°C nor greater than to about 160°C.

2. (previously presented) A solid electrolyte battery according to claim 1, wherein said porous polyolefin film contains polyethylene.

3. (original) A solid electrolyte battery according to claim 1, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.

4. (original) A solid electrolyte battery according to claim 1, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.

5. (original) A solid electrolyte battery according to claim 3, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, polypropylene carbonate and LiPF_6 .

6. (previously presented) A solid electrolyte battery according to claim 5, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2,4-difluoroanisole.

7. (previously presented) A solid electrolyte battery according to claim 6, wherein the content of each of vinylene carbonate and 2,4-difluoroanisole is not greater than 5 wt% of the overall weight of said electrolyte.

8. (original) A solid electrolyte battery according to claim 7, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

9. (original) A solid electrolyte battery according to claim 8, wherein a copolymer is used which contains polyvinylidene fluoride and polyhexafluoropolypropylene.

10. (previously presented) A solid electrolyte battery according to claim 9, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and polyhexafluoropolypropylene such that polyhexafluoropolypropylene is contained in a quantity greater than 8 wt%.

11. (withdrawn) A solid electrolyte battery comprising:
a positive electrode;
a negative electrode disposed opposite to said positive electrode;
a separator disposed between said positive electrode and said negative electrode;
and
solid electrolytes each of which is disposed between said positive electrode and said separator and between said separator and said negative electrode, wherein

said separator is constituted by a polyolefin porous film, said polyolefin porous film has a thickness satisfying a range not greater than 5 μm nor greater than 15 μm , a volume porosity satisfying a range not less than 25 % nor greater than 60 %, breaking strength less than 1650 kg/cm^2 and breaking ductility not less than 135 %.

12. (withdrawn) A solid electrolyte battery according to claim 11, wherein said porous polyolefin film contains polyethylene.

13. (withdrawn) A solid electrolyte battery according to claim 11, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.

14. (withdrawn) A solid electrolyte battery according to claim 11, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.

15. (withdrawn) A solid electrolyte battery according to claim 13, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, polypropylene carbonate and LiPF_6 .

16. (withdrawn) A solid electrolyte battery according to claim 15, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2, 4-difluoroanisole.

17. (withdrawn) A solid electrolyte battery according to claim 15, wherein the content of each of vinylene carbonate and 2, 4-difluoroanisole is not greater than 5 wt% of the overall weight of said solid electrolyte.

18. (withdrawn) A solid electrolyte battery according to claim 17, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

19. (withdrawn) A solid electrolyte battery according to claim 18, wherein a copolymer is used which contains polyvinylidene fluoride and polyhexafluoropolypropylene.

20. (withdrawn) A solid electrolyte battery according to claim 19, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and polyhexafluoropolypropylene such that polyhexafluoropolypropylene is contained in a quantity greater than 8 wt%.

21. (withdrawn) A solid electrolyte battery comprising:
a positive electrode;
a negative electrode disposed opposite to said positive electrode; a separator disposed between said positive electrode and said negative electrode; and
solid electrolytes each of which is disposed between said positive electrode and said separator and between said separator and said negative electrode, wherein
said separator is constituted by a composite material of polyethylene and polypropylene, said polyolefin porous film has a thickness satisfying a range not greater than 5 μm nor greater than 15 μm , the shutdown temperature is substantially the same as the shutdown temperature of a separator constituted by polyethylene and the meltdown temperature is greater than the meltdown temperature of a separator constituted by polypropylene by a range satisfying a range not less than 10°C nor greater than 30°C.

22. (withdrawn) A solid electrolyte battery according to claim 21, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.

23. (withdrawn) A solid electrolyte battery according to claim 21, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.

24. (withdrawn) A solid electrolyte battery according to claim 22, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, polypropylene carbonate and LiPF_6 .

25. (withdrawn) A solid electrolyte battery according to claim 24, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2, 4-difluoroanisol.

26. (withdrawn) A solid electrolyte battery according to claim 25, wherein the content of each of vinylene carbonate and 2, 4-difluoroanisol is not greater than 5 wt% of the overall weight of said solid electrolyte.

27. (withdrawn) A solid electrolyte battery according to claim 26, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

28. (withdrawn) A solid electrolyte battery according to claim 27, wherein a copolymer is used which contains polyvinylidene fluoride and polyhexafluoropolypropylene.

29. (withdrawn) A solid electrolyte battery according to claim 28, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and polyhexafluoropolypropylene such that polyhexafluoropolypropylene is contained in a quantity greater than 8 wt%.

30. (withdrawn) A solid electrolyte battery comprising:
a positive electrode;
a negative electrode disposed opposite to said positive electrode;
a separator disposed between said positive electrode and said negative electrode;
and

solid electrolytes each of which is disposed between said positive electrode and said separator and between said separator and said negative electrode, wherein

said separator is formed by bonding a first separator constituted by polyethylene and a second separator constituted by polypropylene to each other, said separator has a thickness satisfying a range not greater than 5 μm nor greater than 15 μm and said separator has a shutdown temperature which is substantially the same as the shutdown temperature of a

separator constituted by polyethylene and a meltdown temperature which is substantially the same as the meltdown temperature of a separator constituted by polypropylene.

31. (withdrawn) A solid electrolyte battery according to claim 30, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.

32. (withdrawn) A solid electrolyte battery according to claim 30, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.

33. (withdrawn) A solid electrolyte battery according to claim 31, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, polypropylene carbonate and LiPF_6 .

34. (withdrawn) A solid electrolyte battery according to claim 33, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2, 4-difluoroanisole.

35. (withdrawn) A solid electrolyte battery according to claim 34, wherein the content of each of vinylene carbonate and 2, 4-difluoroanisole is not greater than 5 wt% of the overall weight of said solid electrolyte.

36. (withdrawn) A solid electrolyte battery according to claim 35, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

37. (withdrawn) A solid electrolyte battery according to claim 36, wherein a copolymer is used which contains polyvinylidene fluoride and polyhexafluoropolypropylene.

38. (withdrawn) A solid electrolyte battery according to claim 37, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and

polyhexafluoropolypropylene such that polyhexafluoropolypropylene is contained in a quantity greater than 8 wt%.